

That which is claimed is:

*Sub A 1 >*

1. An exercise machine that simulates a rowing motion, comprising:

5 a frame;

a seat assembly attached to the frame;

10 a movement arm pivotally attached to the frame and movable along a generally longitudinal stroke path between a forward position and a rearward position;

15 a resistance-imparting unit operatively connected with the movement arm to provide resistance to the movement arm as it moves from the forward position to the rearward position;

20 a pair of handles to be grasped by an exerciser;

a pair of extension members, each of which is attached to a respective handle such that each handle is free to rotate about a longitudinal axis of the extension member;

25 wherein the extension members are attached to the movement arm such that each extension member is free to at least partially rotate relative to the movement arm about vertical, longitudinal and transverse axes; and

30 wherein the extension members are of sufficient length and the extension members are attached to the movement arm so that the handles can be separated by a distance of at least 24 inches when the movement arm is in the rearward position.

20 2. The exercise machine defined in Claim 1, wherein the resistance-imparting unit comprises a weight stack.

25 3. The exercise machine defined in Claim 1, wherein the extension members have a length between about 8 and 48 inches.

4. The exercise machine defined in Claim 1, wherein each of the extension members is attached to the movement arm via a ball joint.

30 5. The exercise machine defined in Claim 1, wherein each handle is attached to its respective extension member via a rotary bearing.

6. The exercise machine defined in Claim 1, further comprising a unit that varies the resistance imparted to the exerciser by the resistance-imparting unit along the stroke path.

7. The exercise machine defined in Claim 6, wherein the unit that varies resistance comprises a four-bar linkage that includes the movement arm.

5 8. The exercise machine defined in Claim 7, wherein the four bar linkage includes a swing link pivotally interconnected to the frame.

9. The exercise machine defined in Claim 8, wherein the resistance-imparting unit is a weight stack, and wherein the weight stack is interconnected with the 10 movement arm via a belt, and wherein a pulley that engages the belt is attached to the swing link.

15 10. An exercise machine that simulates a rowing motion, comprising:  
a frame;  
a seat assembly attached to the frame;  
a movement arm pivotally attached to the frame and movable along a generally longitudinal stroke path between a forward position and a rearward position;  
a resistance-imparting unit operatively connected with the movement arm to provide resistance to the movement arm as it moves from the forward position to the 20 rearward position;

a pair of handles to be grasped by an exerciser;  
a pair of extension members, each of which is attached to a respective handle such that each handle is free to rotate about a longitudinal axis of the extension member;  
wherein the extension members are attached to the movement arm such that each 25 extension member is free to at least partially rotate relative to the movement arm about vertical, longitudinal and transverse axes; and  
wherein a distance between the attachment of each extension member with the movement arm and the attachment of each extension member with its respective handle is between about 8 and 48 inches.

30 11. The exercise machine defined in Claim 10, wherein each of the extension members is attached to the movement arm via a universal ball joint.

12. The exercise machine defined in Claim 10, wherein each handle is attached to its respective extension member via a sleeve bearing.

13. The exercise machine defined in Claim 10, further comprising a unit that varies the resistance imparted to the exerciser by the resistance-imparting unit along the stroke path.

14. The exercise machine defined in Claim 13, wherein the unit that varies resistance comprises a four-bar linkage that includes the movement arm.

10 15. The exercise machine defined in Claim 14, wherein the four bar linkage includes a swing link pivotally interconnected to the frame.

15. The exercise machine defined in Claim 15, wherein the resistance-imparting unit is a weight stack, and wherein the weight stack is interconnected with the movement arm via a belt, and wherein a pulley that engages the belt is attached to the swing link.